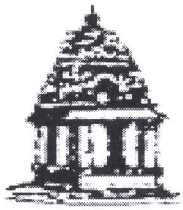

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

DIVISION: BYATARAYANAPURA

SUB DIVISION: VIDYARANYAPURA

Name of Work: Estimate for Improvements and Asphalting to Roads at Utthanalappa Layout Cross Roads and Surrounding areas in Ward No. 09 (Vidyaranyapura).

Job Code: 009-20-000082

Estimated Cost: Rs: 25.00 Lakhs

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of the work: **Estimate for Improvements and Asphalting to Roads at Utthanalappa Layout Cross Roads and Surrounding areas in Ward No. 09 (Vidyaranyapura).**

	009-20-000082	P-3726				Estimate Cost:		2500000.00
Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
1	KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 143 / Item No. 19.1, PWD SR 2018-19**	Cum							
	For Drain Desilting								
	Uthanallappa Layout 1st Cross E/S		2	45.00	0.45	0.40	16.20		
	Uthanallappa Layout 1st Cross W/S		2	37.00	0.45	0.40	13.32		
	Uthanallappa Layout 2nd Cross E/S		2	47.00	0.45	0.40	16.92		
	Uthanallappa Layout 2nd Cross W/S		2	52.00	0.45	0.40	18.72		
	Uthanallappa Layout 3rd Cross E/S		2	44.00	0.45	0.40	15.84		
	Uthanallappa Layout 3rd Cross W/S		2	54.00	0.45	0.45	21.87		
	Uthanallappa Layout 4th Cross E/S		2	42.00	0.45	0.45	17.01		
	Berm Cutting								
	Uthanallappa Layout 1st Cross E/S		2	45.00	0.90	0.20	16.20		
	Uthanallappa Layout 1st Cross W/S		2	37.00	0.90	0.20	13.32		
	Uthanallappa Layout 2nd Cross E/S		2	47.00	0.90	0.20	16.92		
	Uthanallappa Layout 2nd Cross W/S		2	52.00	0.90	0.20	18.72		
	Uthanallappa Layout 3rd Cross E/S		2	44.00	0.90	0.20	15.84		
	Uthanallappa Layout 3rd Cross W/S		2	54.00	0.90	0.20	19.44		
	Uthanallappa Layout 4th Cross E/S		2	42.00	0.90	0.20	15.12		
	Culvert		1	7.00	1.80	1.20	15.12		
							250.56	243.88	**61107.00**
	Basic Rate	130.00							
	Area Weightage @6%	7.80							
	Total	**137.80**							
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		243.88							
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) **Page No. 27 / Item No. 5.33 PWD SR 2018-19**	Sqm							
	BS Slab Drain								
	Uthanallappa Layout 1st Cross E/S		2	45.00		1.35	121.50		
	Uthanallappa Layout 1st Cross W/S		2	37.00		1.35	99.90		
	Uthanallappa Layout 2nd Cross E/S		2	47.00		1.35	126.90		
	Uthanallappa Layout 2nd Cross W/S		2	52.00		1.35	140.40		
	Uthanallappa Layout 3rd Cross E/S		2	44.00		1.35	118.80		
	Uthanallappa Layout 3rd Cross W/S		2	54.00		1.35	145.80		
	Uthanallappa Layout 4th Cross E/S		2	42.00		1.35	113.40		
	BS Slab Drain Covering Slab						**866.70**		
	Uthanallappa Layout 1st Cross E/S		2	45.00		0.90	81.00		
	Uthanallappa Layout 1st Cross W/S		2	37.00		0.90	66.60		
	Uthanallappa Layout 2nd Cross E/S		2	47.00		0.90	84.60		
	Uthanallappa Layout 2nd Cross W/S		2	52.00		0.90	93.60		
	Uthanallappa Layout 3rd Cross E/S		2	44.00		0.90	79.20		
	Uthanallappa Layout 3rd Cross W/S		2	54.00		0.90	97.20		
	Uthanallappa Layout 4th Cross E/S		2	42.00		0.90	75.60		
							577.80		
	Deduct for Open Space 20%						-115.56		
							462.24		
	Basic Rate	105.00					**1328.94**	111.30	**147911.00**
	Area Weightage @ 6%	6.30							
	Total	**111.30**							

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete **Page No. 27 / Item No. 5.31.1 PWD SR 2018-19**	Sqm							
	Damaged Slabs & Missing Slabs 20%		Vide Item No. 2				173.34		
	Basic Rate	700.00					**173.34**	742.00	**128618.00**
	Area Weightage @ 6%	42.00							
	Total	**742.00**							
4	KSRRB M2100-10. Providing and laying **Plain cement concrete of mix 1:3:6 with with OPC cement @ 220kgs, with crushed 40mm and down size** graded granite metal coarse aggregates @0.84cum and fine aggregates @ 0.56cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per specifications MORTH Specification No. 2100 **Item No. 27.18 Page No. 222, PWD SR 2018-19**	Cum							
	Culverts		1	7.00	1.80	0.15	1.89		
							1.89	5421.90	**10247.00**
	Basic Rate	5115.00							
	Area Weightage @ 6%	306.90							
	Total	**5421.90**							
5	Providing and constructing granite / trap / basalt size stone masonry in **basement with cement mortar 1:6, edges of stones** chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. **Page No. 255, Item No. 34.9, PWD SR 2018-19**	cum							
			2	7.00	0.60	0.90	7.56		
	Basic Rate	5483.00					**7.56**	5811.98	**43939.00**
	Area Weightage @ 6%	328.98							
	Total	**5811.98**							
6	KSRB 15.1.3 Providing **ruled pointing 20 mm deep** to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications **Page No. 115 / Item No. 15.3, PWD SR 2018-19**	Sqm							
			2	7.00		0.90	12.60		
	Basic Rate	142.00					**12.60**	150.52	**1897.00**
	Area Weightage @ 6%	8.52							
	Total	**150.52**							
7	Providing **precast slab of 250mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc.,complete as per the direction of engineer in charge - (Data rate Approved).	Sqm							
			12	1.50	0.60		10.80		
							10.80	5418.00	**58514.00**
8	KSRB 5-14 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 **Page No. 27 / Item No. 5.26.2, PWD SR 2018-19**	Sqm							

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
	Uthanallappa Layout 1st Cross E/S		2x2	30.00		0.40	48.00		
	Uthanallappa Layout 1st Cross W/S		2x2	20.00		0.40	32.00		
	Uthanallappa Layout 2nd Cross E/S		2x2	15.00		0.40	24.00		
	Uthanallappa Layout 2nd Cross W/S		2x2	20.00		0.40	32.00		
	Uthanallappa Layout 3rd Cross E/S		2x2	28.00		0.40	44.80		
	Uthanallappa Layout 3rd Cross W/S		2x2	22.00		0.40	35.20		
	Uthanallappa Layout 4th Cross E/S		2x2	25.00		0.40	40.00		
	Basic Rate	924.00					**256.00**	979.44	**250737.00**
	Area Weightage @ 6%	55.44							
	Total	**979.44**							
9	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, for coping. Including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page. No. 255 / Item No.34.11 of PWD SR 2018-19**	Cum							
	Bed Concrete								
	Uthanallappa Layout 1st Cross E/S		2	20.00	0.45	0.10	1.80		
	Uthanallappa Layout 1st Cross W/S		2	18.00	0.45	0.10	1.62		
	Uthanallappa Layout 2nd Cross E/S		2	22.00	0.45	0.10	1.98		
	Uthanallappa Layout 2nd Cross W/S		2	25.00	0.45	0.10	2.25		
	Uthanallappa Layout 3rd Cross E/S		2	20.00	0.45	0.10	1.80		
	Uthanallappa Layout 3rd Cross W/S		2	25.00	0.45	0.10	2.25		
	Uthanallappa Layout 4th Cross E/S		2	20.00	0.45	0.10	1.80		
	Coping Concrete								
	Uthanallappa Layout 1st Cross E/S		2x2	30.00	0.20	0.10	2.40		
	Uthanallappa Layout 1st Cross W/S		2x2	20.00	0.20	0.10	1.60		
	Uthanallappa Layout 2nd Cross E/S		2x2	15.00	0.20	0.10	1.20		
	Uthanallappa Layout 2nd Cross W/S		2x2	20.00	0.20	0.10	1.60		
	Uthanallappa Layout 3rd Cross E/S		2x2	28.00	0.20	0.10	2.24		
	Uthanallappa Layout 3rd Cross W/S		2x2	22.00	0.20	0.10	1.76		
	Uthanallappa Layout 4th Cross E/S		2x2	25.00	0.20	0.10	2.00		
	Culvert Coping		1	7.00	1.50	0.10	1.05		
	Ramp		2	7.00	1.00	0.15	2.10		
	Basic Rate	5283.00					**29.45**	5599.98	**164919.00**
	Area Weightage @ 6%	316.98							
	Total	**5599.98**							
10	Providing granite slabs of selected quality roughly dressed havinf a size of 10 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete **Page No. 27 / Item No. 5.31.2 PWD SR 2018-19**	Sqm							
	B S Slab Missing Covering								
	Uthanallappa Layout 1st Cross E/S		2	30.00	0.90		54.00		
	Uthanallappa Layout 1st Cross W/S		2	18.00	0.90		32.40		
	Uthanallappa Layout 2nd Cross E/S		2	22.00	0.90		39.60		
	Uthanallappa Layout 2nd Cross W/S		2	25.00	0.90		45.00		
	Uthanallappa Layout 3rd Cross E/S		2	20.00	0.90		36.00		
	Uthanallappa Layout 3rd Cross W/S		2	25.00	0.90		45.00		
	Uthanallappa Layout 4th Cross E/S		2	18.00	0.90		32.40		
	Basic Rate	912.00		158.00			**284.40**	966.72	**274935.00**
	Area Weightage @ 6%	54.72							
	Total	**966.72**							

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
11	KSRB 5-9 : Providing chamfering edges to stone slab 2.5 cms. wide as per specifications. (only chamfered length shall be recorded) KBS 5.1.13 **Page No. 26 / Item No. 5.22, PWD SR 2018-19**	m							
			527	3.00			**1580.00**	61.48	**97138.00**
	Basic Rate	58.00							
	Area Weightage @ 6%	3.48							
	Total	**61.48**							
12	KSRRB 300-49. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by manual means without disturbing the base and stacking of the debris materials including cost of all labour charges complete as per specifications. MORTH / Chapter 3 **Page No. 146 / Item No. 19.55 PWD SR 2018-19**	Sqm							
	Uthanallappa Layout 1st Cross E/S		1	45.00	5.00		225.00		
	Uthanallappa Layout 1st Cross W/S		1	37.00	5.00		185.00		
	Uthanallappa Layout 2nd Cross E/S		1	47.00	5.00		235.00		
	Uthanallappa Layout 2nd Cross W/S		1	52.00	5.00		260.00		
	Uthanallappa Layout 3rd Cross E/S		1	44.00	4.50		198.00		
	Uthanallappa Layout 3rd Cross W/S		1	54.00	4.50		243.00		
	Uthanallappa Layout 4th Cross E/S		1	42.00	3.50		147.00		
	Uthanallappa Layout 4th Cross W/S		1	53.00	5.00		265.00		
	Total Qty						**1758.00**		
	Consider 25% of the Total Qty						**439.50**	95.40	**41928.00**
	Basic Rate	90.00							
	Area Weightage @ 6%	5.40							
	Total	**95.40**							
13	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **Page No. 155 / Item No. 20.18, PWD SR 2018-19**	Cum							
	Uthanallappa Layout 1st Cross E/S		1	45.00	5.00	0.25	56.25		
	Uthanallappa Layout 1st Cross W/S		1	37.00	5.00	0.25	46.25		
	Uthanallappa Layout 2nd Cross E/S		1	47.00	5.00	0.25	58.75		
	Uthanallappa Layout 2nd Cross W/S		1	52.00	5.00	0.25	65.00		
	Uthanallappa Layout 3rd Cross E/S		1	44.00	4.50	0.25	49.50		
	Uthanallappa Layout 3rd Cross W/S		1	54.00	4.50	0.25	60.75		
	Uthanallappa Layout 4th Cross E/S		1	42.00	3.50	0.25	36.75		
	Uthanallappa Layout 4th Cross W/S		1	53.00	5.00	0.25	66.25		
	Total Qty						**439.50**		
	Consider 25% of the Total Qty						**109.88**	2001.28	**219891.00**
	Basic Rate	1888.00							
	Area Weightage @ 6%	113.28							
	Total	**2001.28**							

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
14	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 **Page No. 158 / Item No. 21.6, PWD SR 2018-19**	Sqm							
	Uthanallappa Layout 1st Cross E/S		1	45.00	5.00		225.00		
	Uthanallappa Layout 1st Cross W/S		1	37.00	5.00		185.00		
	Uthanallappa Layout 2nd Cross E/S		1	47.00	5.00		235.00		
	Uthanallappa Layout 2nd Cross W/S		1	52.00	5.00		260.00		
	Uthanallappa Layout 3rd Cross E/S		1	44.00	4.50		198.00		
	Uthanallappa Layout 3rd Cross W/S		1	54.00	4.50		243.00		
	Uthanallappa Layout 4th Cross E/S		1	42.00	3.50		147.00		
	Uthanallappa Layout 4th Cross W/S		1	53.00	5.00		265.00		
	Total Qty						**1758.00**		
	Consider 25% of the Total Qty						**439.50**	28.62	**12578.00**
	Revised Rate as on 03.01.2020 Basic Rate	27.00							
	Area Weightage @ 6%	1.62							
	Total	**28.62**							
15	KSRRB 500-11. Providing and laying **bituminous macadam** on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixd material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 - using **40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.3 % VG-30 Bitumen Page No. 159 / Item No. 21.11.6, PWD SR 2018-19**	Cum							
	Uthanallappa Layout 1st Cross E/S		1	45.00	5.00	0.05	11.25		
	Uthanallappa Layout 1st Cross W/S		1	37.00	5.00	0.05	9.25		
	Uthanallappa Layout 2nd Cross E/S		1	47.00	5.00	0.05	11.75		
	Uthanallappa Layout 2nd Cross W/S		1	52.00	5.00	0.05	13.00		
	Uthanallappa Layout 3rd Cross E/S		1	44.00	4.50	0.05	9.90		
	Uthanallappa Layout 3rd Cross W/S		1	54.00	4.50	0.05	12.15		
	Uthanallappa Layout 4th Cross E/S		1	42.00	3.50	0.05	7.35		
	Uthanallappa Layout 4th Cross W/S		1	53.00	5.00	0.05	13.25		
	Total Qty						**87.90**		
	Consider 25% of the Total Qty						**21.98**	5363.60	**117865.00**
		5060.00							
	Area Weightage @ 6%	303.60							
	Total	**5363.60**							
16	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501 **Page No. 158 / Item No. 21.2, PWD SR 2018-19**	Sqm							
	Uthanallappa Layout 1st Cross E/S		1	45.00	5.00		225.00		
	Uthanallappa Layout 1st Cross W/S		1	37.00	5.00		185.00		
	Uthanallappa Layout 2nd Cross E/S		1	47.00	5.00		235.00		

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
	Uthanallappa Layout 2nd Cross W/S		1	52.00	5.00		260.00		
	Uthanallappa Layout 3rd Cross E/S		1	44.00	4.50		198.00		
	Uthanallappa Layout 3rd Cross W/S		1	54.00	4.50		243.00		
	Uthanallappa Layout 4th Cross E/S		1	42.00	3.50		147.00		
	Uthanallappa Layout 4th Cross W/S		1	53.00	5.00		265.00		
	Total Qty						**1758.00**	5.30	**9317.00**
	Basic Rate	5.00							
	Area Weightage @ 6%	0.30							
	Total	**5.30**							
17	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 **Page No. 158 / Item No. 21.7 PWD SR 2018-19**	Sqm							
			Qty Vide Item No. 16				1758.00		
	Revised Rate as on 03.01.2020 Basic Rate	12.00					**1758.00**	12.72	**22362.00**
	Area Weightage @ 6%	0.72							
	Total	**12.72**							
18	KSRRB M500-19. Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - **using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen Page No. 162 / Item No. 21.22.6, PWD SR 2018-19**	Cum							
	Uthanallappa Layout 1st Cross E/S		1	45.00	5.00	0.040	9.00		
	Uthanallappa Layout 1st Cross W/S		1	37.00	5.00	0.040	7.40		
	Uthanallappa Layout 2nd Cross E/S		1	47.00	5.00	0.040	9.40		
	Uthanallappa Layout 2nd Cross W/S		1	52.00	5.00	0.040	10.40		
	Uthanallappa Layout 3rd Cross E/S		1	44.00	4.50	0.040	7.92		
	Uthanallappa Layout 3rd Cross W/S		1	54.00	4.50	0.040	9.72		
	Uthanallappa Layout 4th Cross E/S		1	42.00	3.50	0.040	5.88		
	Uthanallappa Layout 4th Cross W/S		1	53.00	5.00	0.040	10.60		
	Revised Rate as on 03.01.2020 Basic Rate	7161.00					**70.32**	7590.66	**533775.00**
	Area Weightage @ 6%	429.66							
	Total	**7590.66**							
19	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 **Page No. 182, Item No. 24.15 PWD SR 2018-19**	Sqm							
	Uthanallappa Layout 1st Cross E/S		2	45.00	0.10		9.00		
	Uthanallappa Layout 1st Cross W/S		2	37.00	0.10		7.40		
	Uthanallappa Layout 2nd Cross E/S		2	47.00	0.10		9.40		

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
	Uthanallappa Layout 2nd Cross W/S		2	52.00	0.10		10.40		
	Uthanallappa Layout 3rd Cross E/S		2	44.00	0.10		8.80		
	Uthanallappa Layout 3rd Cross W/S		2	54.00	0.10		10.80		
	Uthanallappa Layout 4th Cross E/S		2	42.00	0.10		8.40		
	Uthanallappa Layout 4th Cross W/S		2	53.00	0.10		10.60		
	Revised Basic Rate	429.00					**74.80**	454.74	**34015.00**
	Area Weightage @ 6%	25.74							
	Total	**454.74**							
	Sub Total								**2231693.00**
	GST @ 12%								**267803.00**
	Miscellaneous and other Charges	L/S							**504.00**
								Total	**2500000.00**
Rupees Twenty Five Lakh(s) Only									

CERTIFICATE:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per PWD SR of 2018-19.
3 This work included under 2019-20 POW Grants.
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidayranyapura Sub Division

21/04

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

21/04

Administrative Approval
Accorded For Rs 25.00 lakhs only
Head of A/C P 3726
CER NO: 131 Dt: 20.03.2020

CE (YNK)

Technical Sanction
Accorded For Rs 25.00 lakhs only
Head of A/C P 3726
CER NO: 319 Dt: 20.03.2020

TA CE (YNK)